

# Stormwater Evaluation

- What are our objectives?
- What considerations are shaping our effort?
- What is our path forward?
- How does this line up with RI/FS timeline?

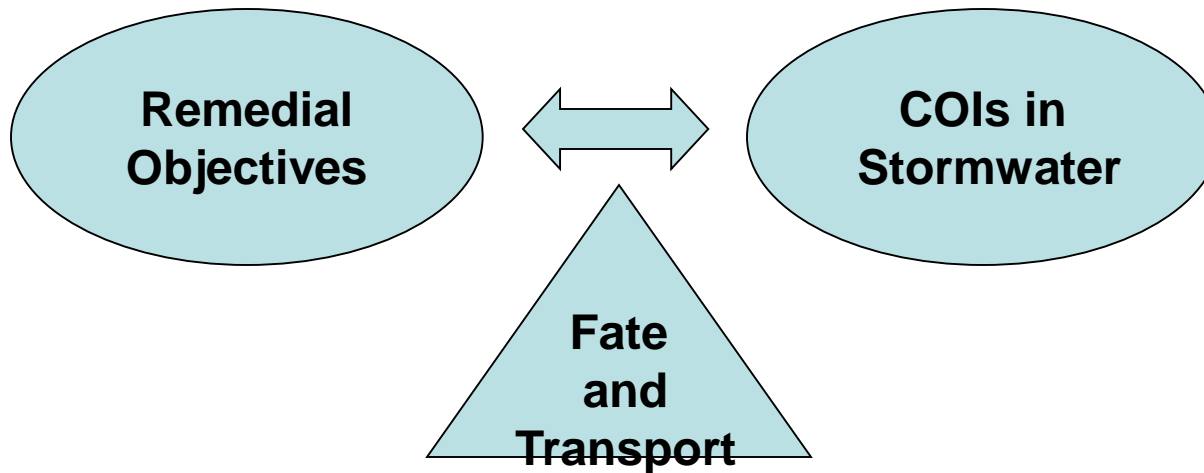
# Objectives

- Move the conversation forward toward developing a common vision for evaluating the stormwater pathway
- Ensure LWG will have stormwater data of sufficient quantity and quality to complete the in-water RI/FS
- Investigate use of Fate and Transport model as a tool for evaluating stormwater impacts at various scales
- Improve understanding of the extent to which stormwater is part of the “problem”
- Guide development of workplans to collect necessary stormwater data
- Create a mechanism for relating RI data to source control efforts

# Considerations

- Little information currently available about the load of COIs entering Portland Harbor via stormwater
- Lack of empirical data on how stormwater discharges affect water column and sediment concentrations in PH
- Remedial Objectives not established yet; don't have a target to shoot for
- Variable nature of stormwater makes it challenging to characterize
- The more significant stormwater is as a source, the more data will be needed to provide confidence for decision-making

# Stormwater Evaluation in a Nutshell

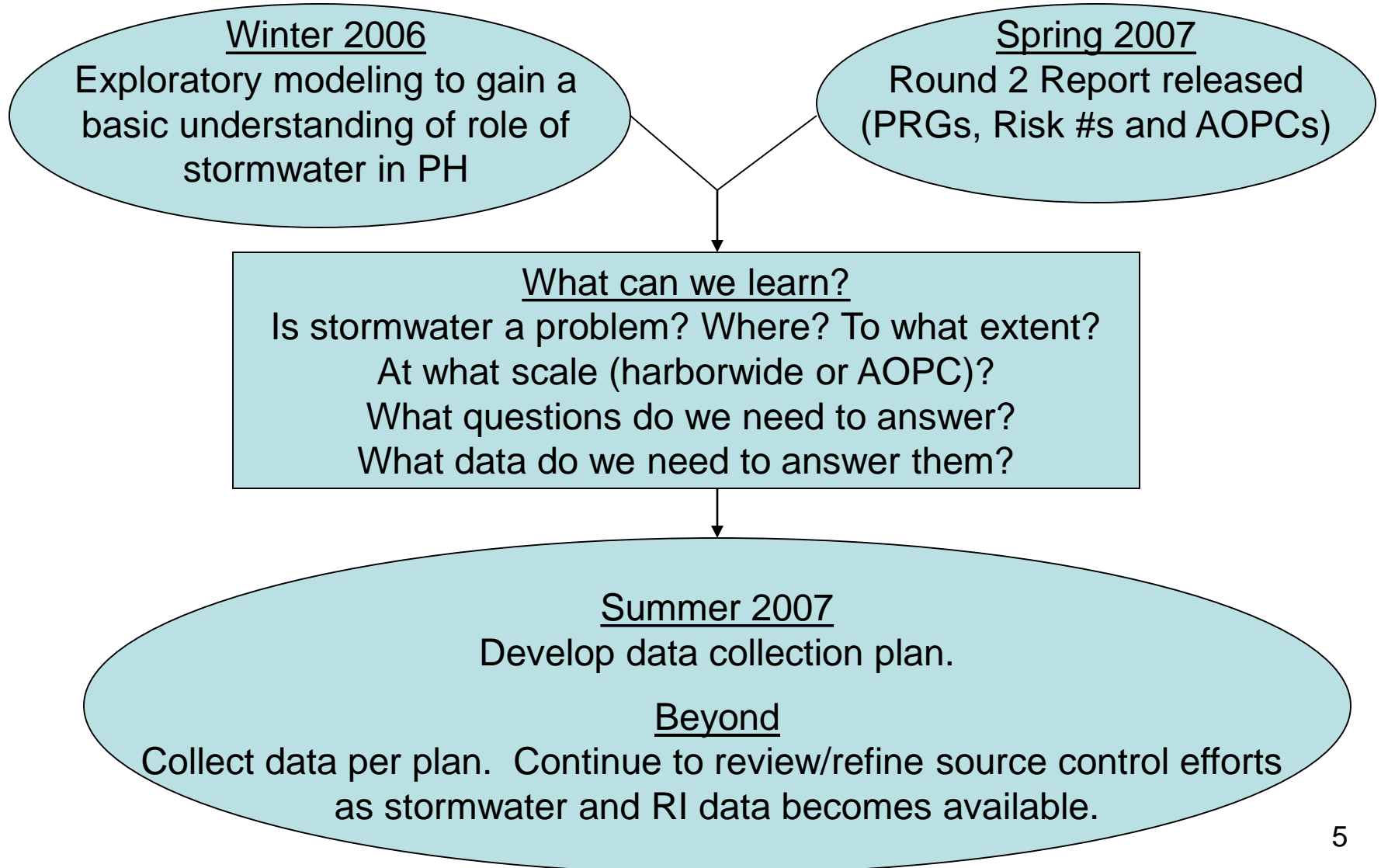


**What happens to stormwater once it reaches the river?**

**How does this relate to the Remedial Objectives for  
water and sediment?**

**How much source control is enough?**

# Path Forward



# Initial Modeling Objectives

- Learn more about how the Fate and Transport model works and what it can do for us
- Get very rough sense of relative impact of stormwater on PH water and sediments
- Use info to help shape next steps, such as:
  - What model runs do we want to do next?
  - What data gaps do we need to fill?
  - What are our data quality objectives?

# Stormwater Modeling

Data sources for initial model runs:

- Use City's Grid model to estimate volume of runoff from ISA
- Use existing stormwater data to ballpark range of COI concentrations in stormwater, or use literature values

$$\text{Concentration} \times \text{Volume} = \text{Loading}$$

# What questions could we ask?

- What concentration of a COI in stormwater would it take to recontaminate sediment in 5/10/50 years?
- How long would it take to recontaminate sediment if we assumed a “typical” concentration?
- What concentration does it take to cause a “signal” in fish? [Link F&T model to Food Web model]



# What do we hope to find out?

By integrating model output with info from Round 2 Report:

- How “sensitive” is the system to stormwater inputs, relative to inputs of COIs from other sources?
- How “clean” does stormwater runoff need to be to avoid causing harborwide (water column) risk?
- Where does stormwater pose a risk for recontaminating sediment?

# How will we use info?

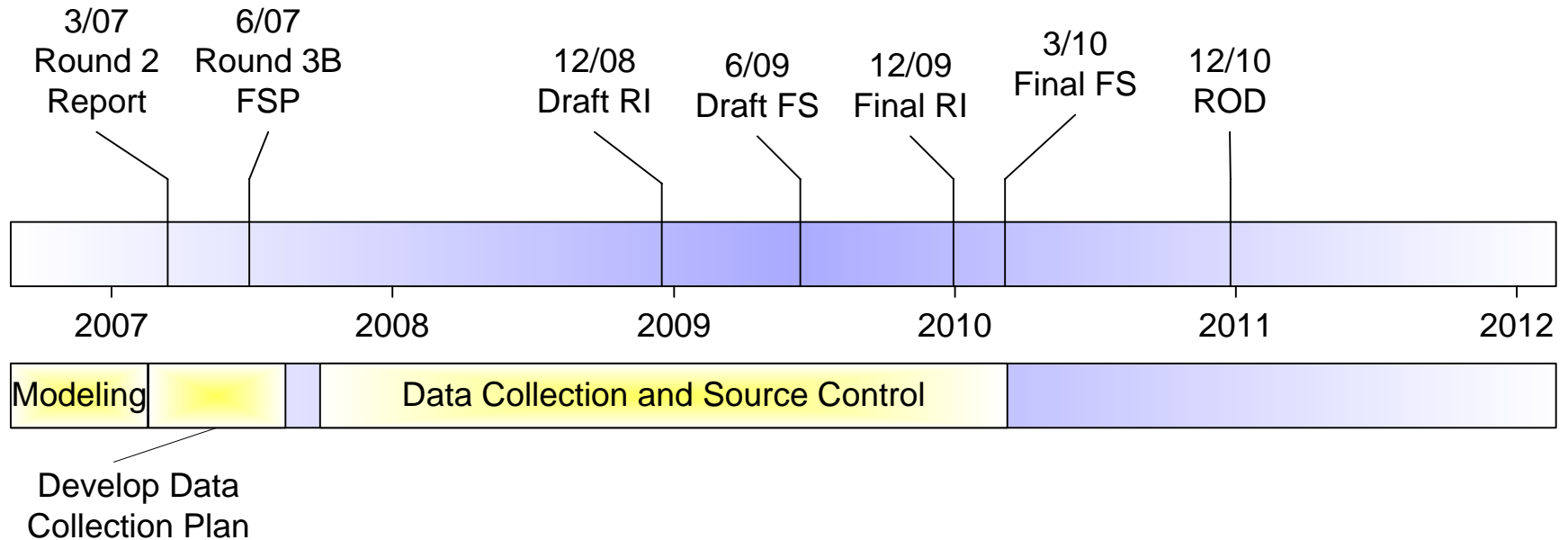
- Identify areas/outfalls where more stormwater data is needed. Define data quality objectives and develop data collection plan.
- Review and revise source control strategy and priorities as necessary.
- Establish targets for evaluating adequacy of source control efforts and long term stormwater management tools (permits)

# How reliable is the model output?

- Need to keep asking the question
- Look for ways to verify model and/or alternative methods for evaluating stormwater impacts

# Timeline

## ROD TIMELINE



## STORMWATER EVALUATION AND SOURCE CONTROL TIMELINE